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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
WONG, BLANCHE	

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2419	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/600,893	SOMASUNDARAM, MAHADEV	
	Examiner	Art Unit	
	Blanche Wong	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,10-16 and 18-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12 and 13* is/are allowed.

6)☒ Claim(s) *1-8,14-16,18 and 20-24* is/are rejected.

7)☒ Claim(s) *10,11 and 19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/21/09,1/22/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed January 21, 2009 have been fully considered but they are not persuasive.

With regard to claims 1,12,14,22,23,24 under 112, 2nd rejection, Applicant states that "[s]pecifically, the shared services are provided by the network device. A default route to the network device is received and included in each of the routing tables associated with the virtual private networks. Thus, each of the virtual private networks may access the shared services provided by the network device via the default route identified in the corresponding routing table." Remark, p.12. However, Examiner respectfully disagrees with at least two areas: 1) It is unclear that the default route is included in each of the routing tables, and 2) It is unclear that each of the virtual private networks may access the shared services via the default route that is included in each of the routing tables.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., 1) the default route is included in each of the routing tables, and 2) each of the virtual private networks may access the shared services via the default route that is included in each of the routing tables) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With regard to claims 1,2,6-8,14-16,18,20,21 under 103 rejection, Applicant states "a translation table of a NAT server is not a routing table. ... a routing table is generally used by network devices such as routers and switches to route packets. Specifically, ... as well as the next hop. ... a translation table does not store routes to nodes in the network, and cannot be used to route packets via a next hop." Remark, p.13. However, Examiner respectfully disagrees with the differentiation between a translation and routing tables because the differentiation is not explicit in the claim. Moreover, if the differentiation that a translation table translates addresses and a routing table routes data is important, then it is unclear from the claim language how a method of performing network address translation is done by a plurality of routing table.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a translation table is not a routing table e.g. next hop) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With regard to claims 1,2,6-8,14-16,18,20,21 under 103 rejection, Applicant states "Liu fails to disclose or suggest "... the default route to the network device providing one or more shared services" and "nothing in Liu discloses or suggests the advertisement by a network device providing shared services of a default route to the

network device." Remark, p.13. Examiner further explains these limitations in the rejection below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1,2,6-8,14-16,18,20-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (U.S. Pat No. 6,928,082) in view of Prince (U.S. Pat No. 5,852,606).

With regard to claims 1,14,22-24, Liu discloses

maintaining a plurality of routing tables **(NAT 26a,26b in Fig. 1)**, each of a plurality of virtual private networks **(private networks 24a,24b in Fig. 1)** being associated with a different one of the plurality of routing tables;

receiving a packet, the packet including an IP source address **(IP address of source device)** and an IP destination address **(IP address of destination device) ("Frames of data are communicated between the various devices utilizing each device IP address for routing the frames from a source device to a destination device", col. 5, lines 64-col. 6, line 1)**, the packet further including information indicating one of the plurality of routing tables to route the packet **(the destination**

address within the private network) ("IP frames on the private network 24 are routed to the appropriate device on private network 24 when the destination address is within the block of private network IP addresses. ... the IP frame on the private network 24 is routed to the NAT server 26", col. 7, lines 34-39);

performing Network Address Translation on the packet **(routed to the NAT server) ("IP frames on the private network 24 are routed to the appropriate device on private network 24 when the destination address is within the block of private network IP addresses. ... the IP frame on the private network 24 is routed to the NAT server 26", col. 7, lines 34-39)**;

identifying one of the plurality of routing tables to route the packet **("NAT server maintains a translation table 30", col. 7, line 61)** using the information indicating one of the plurality of routing tables to route the packet **("utilizing this exemplary translation table can relay a response frame received over the Internet ... back to the appropriate initiating private network client on the appropriate port number", col. 8, lines 10-13)**;

identifying an entry in the identified one of the plurality of routing tables using the IP destination address **("the NAP server 26 will locate the one of the entries 32a-32f to which the frame corresponds utilizing the frames destination IP address ...", col. 8, lines 22-24)**;

routing the packet using the identified routing table entry **("IP frames on the private network 24 are routed to the appropriate device on private network 24 when the destination address is within the block of private network IP addresses.**

... the IP frame on the private network 24 is routed to the NAT server 26", col. 7, lines 34-39); and

receiving a default route to a network device providing one or more shared services **("opening the proxy connection", col. 8, line 7) (there is compatibility/shared services)**, the default route to the network device providing one or more shared services being advertised by the network device, wherein each of the one or more shared services is available to each of the plurality of virtual private networks **("establishing a call signaling connection between the first telephony client located on a private network and the second telephone client on the Internet", col. 2, lines 37-40)**.

Prince discloses updating each of the plurality of routing tables to include the default route **(updating translation table to provide for new virtual path/virtual circuits, col. 6, lines 6-10)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine updating each of the plurality of routing tables to include the default route as taught in Palnati with Liu in order to provide for call set-up and call tear-down ("This process may be referred to as call set-up and call tear-down", Palnati, col. 6, lines 10-11) and to provide for a clean and efficient translation table.

With regard to claim 2, Liu further discloses each of the plurality of virtual private networks is associated with a different customer **(P.N. Client 28 in Fig. 1)**.

With regard to claim 6, Liu further discloses translating the IP source address **(NAT 26a,26b in Fig. 1)** from a private address **(first telephony client located on a private network)** to a public address **(second telephone client on the Internet)** when packet **(call signaling connection)** is received from a network device in a private network **(first telephony client located on a private network) ("establishing a call signaling connection between the first telephony client located on a private network and the second telephone client on the Internet", col. 2, lines 37-40)**.

With regard to claim 7, Liu further discloses translating the IP source address **(NAT 26a,26b in Fig. 1)** from a public address **(second telephone client on the Internet)** to a private address **(first telephony client located on a private network)** when packet **(call signaling connection)** is received from a network device in a public network **(second telephony client located on the Internet) ("establishing a call signaling connection between the first telephony client located on a private network and the second telephone client on the Internet", col. 2, lines 37-40)**.

With regard to claim 8, Liu further discloses the network device in the public network provides one or more services **(call signaling)** to each of the plurality of virtual private networks **("establishing a call signaling connection between the first telephony client located on a private network and the second telephone client on the Internet", col. 2, lines 37-40)**.

With regard to claim 15, Liu further discloses a separate routing table **(NAT 26a,26b in Fig. 1)**.

With regard to claim 16, the combination of Liu and Prince discloses the method as recited in claim 14.

Prince further discloses VPN identifiers **(VPI/VCI, col. 6, line 112)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine VPN identifiers as taught in Prince with Liu to provide for virtual paths/virtual circuits.

With regard to claim 18, Liu further discloses updating a single routing tables to include the default route **(updating translation table to provide for new virtual path/virtual circuits, col. 6, lines 6-10)**.

With regard to claim 20, Liu further discloses the single routing table stores the plurality of sets of routing information **(translation table) ("NAT server maintains a translation table 30", col. 7, line 61)**.

With regard to claim 21, Liu further discloses updating each of the plurality of routing tables to include the default route **(updating translation table to provide for new virtual path/virtual circuits, col. 6, lines 6-10)**.

4. **Claims 3-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu and Prince as applied to claim 1 above, and further in view of Palnati et al. (U.S. Pat No. 5,991,297).

With regard to claim 3, the combination of Liu and Prince discloses the method of claim 1.

Palnati discloses the network device is associated with an ingress interface **(ingress) (ingress and egress translation tables within network devices, col. 4, lines 59-60)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine an ingress interface as taught in Palnati with Liu and Prince in order to facilitate the call set-up procedure.

With regard to claim 4, the combination of Liu and Prince discloses the method of claim 1.

Palnati discloses the network device is associated with an egress interface **(egress) (ingress and egress translation tables within network devices, col. 4, lines 59-60)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine an egress interface as taught in Palnati with Liu and Prince in order to facilitate the call set-up procedure.

With regard to claim 5, the combination of Liu and Prince discloses the method of claim 1.

Palnati discloses the network device is associated with a service provider network **(source of information) ("'connection' or 'circuit' which defines communication paths between the source of information within the network", col. 4, lines 51-52)**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a service provider as taught in Palnati with Liu and Prince in order to have a source of information to facilitate the call set-up procedure.

Allowable Subject Matter

5. **Claims 12 and 13** are allowed.

6. Claims 10,11,19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claim 12, the prior art of record fails to anticipate or make obvious a method comprising: "maintaining a plurality of routing tables, each of a plurality of virtual private networks being associated with a different one of the plurality of routing tables; ... performing Network Address Translation on the packet; ... wherein the packet

[already include an IP source address and an IP destination address] further includes an Multi Protocol Label Switching tag indicating a virtual private network, and wherein performing Address Translation on the packet comprises: ascertaining the virtual private network from the Multi Protocol Label Switching tag; identifying an entry in a translation table including ... a virtual network identifier identifying the ascertained virtual private network *using the IP source address, the IP destination address and the Multi Protocol Label Switching tag in the packet*; and performing Network Address Translation on the packet using the *identified* entry in the translation table ..." and then "identifying one of plurality of routing table using the information indicating one of the plurality of routing tables in the packet; identifying an entry in the *identified routing table* using the IP destination address".

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blanche Wong/
Examiner, Art Unit 2419
February 11, 2009

/Edan Orgad/
Supervisory Patent Examiner, Art Unit 2419